



B is for breakfast--and boys.

A new study shows that mothers who eat a lot of cereal are most likely to conceive baby boys.

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Want a Boy? Eat your Wheaties

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Moms have more clout than they realize when it comes to the sex of their children. A new study of British mothers suggests that women who eat more--

especially more breakfast cereal--at the time of conception are more likely to have boys.

Births of boys are on the decline in several industrialized countries, including the United States, the U.K., and Canada. In the U.S., the proportion of male babies has dropped by about 0.1% since 1970--a small but detectable decline that's amounted to more than 38,000 "missing" boys. The cause of the change is unknown, and some researchers have blamed environmental contaminants that might interfere with hormone balance or poison male embryos. But biologist Fiona Mathews of the University of Exeter in the U.K. wondered if there might be a less sinister force at work.

In 1973, biologist Robert Trivers and mathematician Dan Willard predicted that to maximize the number of her descendants, a mother should have some control over the sex of her offspring. If she's healthy and has plenty of food, male offspring are her best investment because they can produce more progeny than can females. But a mediocre male cannot, so mothers with limited resources are better off having girls.

If human moms fit the Trivers-Willard prediction, Mathews and her colleagues expected that women with a greater total calorie intake should produce more boys. The team studied a random sample of 721 pregnant women from southern England who were expecting for the first time and didn't know the sex of their fetuses. Each woman answered a detailed survey about what she had been eating at the time of conception, and the researchers divided the women into three categories based on total calorie intake. In the highest-calorie group, 56% of the women had sons, compared to only 45% in the lowest-calorie group. Much of the effect seemed to depend on whether a woman ate breakfast or not. As the team reports online this week in the *Proceedings of the Royal Society B*, 59% of moms who ate at least one bowl of cereal per day had boys, compared to only 43% of women who ate less than one bowl per week. With fewer women eating breakfast, Mathews says that the Trivers-Willard effect could be at least part of the explanation for dropping sex ratios. Breakfast may be particularly important for maintaining blood sugar levels, which have been linked to increased production of males in other mammals, although the precise mechanism is unknown ([ScienceNOW](#), 30 November 2007).

Elissa Cameron, a mammal ecologist at the University of Pretoria in South Africa, says the results are convincing and important as the first evidence for the Trivers-Willard hypothesis in modern humans. But it's not clear whether nutrition is the driving force behind the declining number of boys, says Shanna Swan, an epidemiologist at the University of Rochester School of Medicine and Dentistry in New York. She says that if maternal diet is a factor, "it's undoubtedly not the only one," and environmental contaminants could still be part of the story.